ABSTRACT OF THE DISCLOSURE

The semiconductor substrate comprises a silicon substrate 10, a silicon germanium layer 12 formed on the silicon substrate; and a silicon layer 14 formed on the silicon germanium layer. At least one of an isotope composition ratio of one Si isotope and an isotope composition ratio of a Ge isotope of at least one of the silicon substrate, the silicon germanium layer and the silicon layer is above 95%. In at least one of the silicon substrate, the silicon germanium layer and the silicon layer, at lest one of an isotope composition ratio of one Si isotope and an isotope composition ratio of one Ge isotope is set higher, whereby the heat can be scattered in the direction horizontal to the substrate plane. Thus, the semiconductor substrate can have higher heat radiation.